

CLAIMS:

1. A mixture of isomeric decyl benzoates, comprising:
from 50 to 99% of 2-propylheptyl benzoate and
from 1 to 50% of at least one decyl benzoate selected from the group consisting of 2-isopropyl-4-methylhexyl benzoate, 2-isopropyl-5-methylhexyl benzoate, 2-propyl-4-methylhexyl benzoate, 2-propyl-5-methylhexyl benzoate, and mixtures thereof.
2. The mixture as claimed in Claim 1, wherein the decyl benzoate is 2-isopropyl-4-methylhexyl benzoate.
3. The mixture as claimed in Claim 1, wherein the decyl benzoate is 2-isopropyl-5-methylhexyl benzoate.
4. The mixture as claimed in Claim 1, wherein the decyl benzoate is 2-propyl-4-methylhexyl benzoate.
5. The mixture as claimed in Claim 1, wherein the decyl benzoate is 2-propyl-5-methylhexyl benzoate.
6. The mixture as claimed in Claim 1, wherein the decyl benzoate is a mixture of two or more decyl benzoates selected from the group consisting of 2-isopropyl-4-methylhexyl benzoate, 2-isopropyl-5-methylhexyl benzoate, 2-propyl-4-methylhexyl benzoate and 2-propyl-5-methylhexyl benzoate.

7. A process for preparing the mixture as claimed in Claim 1, which comprises esterifying, with benzoic acid,
2-propylheptanol, and
at least one selected from the group consisting of 2-isopropyl-4-methylhexanol, 2-isopropyl-5-methylhexanol, 2-propyl-4-methylhexanol, 2-propyl-5-methylhexanol, and mixtures thereof.
8. A process for preparing the mixture as claimed in Claim 1, which comprises esterifying, with at least one selected from the group consisting of methyl benzoate, ethyl benzoate, propyl benzoate, butyl benzoate, and mixtures thereof,
to transesterify 2-propylheptanol and at least one selected from the group consisting of 2-isopropyl-4-methylhexanol, 2-isopropyl-5-methylhexanol, 2-propyl-4-methylhexanol, 2-propyl-5-methylhexanol, and mixtures thereof.
9. The process as claimed in Claim 8, wherein esterification is carried out autocatalytically or catalytically using one or more Bronstedt or Lewis acids.
10. The process as claimed in Claim 8, further comprising using one or more entrainers.
11. The process as claimed in Claim 8, further comprising using one or more entrainers in excess of from 5 to 50% an amount needed to form the ester.
12. The process as claimed in Claim 8, further comprising using one or more esterification catalysts selected from the group consisting of acid, sulfuric acid,

methanesulfonic acid, p-toluenesulfonic acid, tin, titanium, zirconium, salts thereof, oxides thereof, soluble organic compounds thereof, and mixtures thereof.

13. The process as claimed in Claim 8, further comprising using one or more esterification catalysts selected from the group consisting of tin powder, stannous oxide, stannous oxalate, titanate ester, tetraisopropyl orthotitanate, tetrabutyl orthotitanate, zirconium ester, tetrabutyl zirconate, and mixtures thereof.

14. The process as claimed in Claim 8, wherein the transesterification is carried out at a temperature of 100 to 220°C.

15. A polymer, plastic, PVC, or PVC plastisol, comprising the mixture as claimed in Claim 1 as a plasticizer.

16. The polymer, plastic, PVC or PVC plastisol as claimed in Claim 15, wherein the polymer PVC or PVC plastisol is selected from the group consisting of PVC, PVB, homo- and copolymers based on ethylene, on propylene, on butadiene, on vinyl acetate, on glycidyl acrylate, on glycidyl methacrylate, on acrylates, on acrylates with, bonded to the oxygen atom of the ester group, alkyl radicals of branched or unbranched alcohols having from 1 to 10 carbon atoms, on styrene or acrylonitrile, or on homo- or copolymers of cyclic olefins, and combinations thereof.

17. The polymer, plastic, PVC or PVC plastisol as claimed in Claim 15, wherein the plastic is selected from the group consisting of polyacrylate having identical or different alkyl radicals having from 4 to 10 carbon atoms, bonded to the oxygen atom of the ester group,

polymethacrylate, polymethyl methacrylate, methyl acrylate-butyl acrylate copolymer, methyl methacrylate-butyl methacrylate copolymer, ethylene-vinyl acetate copolymer, chlorinated polyethylene, nitrile rubber, acrylonitrile-butadiene styrene copolymer, ethylene-propylene copolymer, ethylene-propylene-diene copolymer, styrene-acrylonitrile copolymer, acrylonitrile-butadiene rubber, styrene-butadiene elastomer, methyl methacrylate-styrene-butadiene copolymer, nitrocellulose, and combinations thereof.

18. A paint, ink or coating material, comprising the mixture as claimed in Claim 1.

19. An adhesive, component thereof, or sealing compound, comprising the mixture as claimed in Claim 1.

20. A composition, comprising from 5 to 90% by weight of the mixture as claimed in Claim 1 and from 10 to 95% by weight of one or more di-C₄-C₁₃-alkyl phthalates.

21. The composition as claimed in Claim 20, wherein the dialkyl phthalate is diisononyl phthalate.

22. A composition, comprising from 5 to 90% by weight of the mixture as claimed in Claim 1 and from 10 to 95% by weight of one or more di-C₄-C₁₃-alkyl adipates.

23. The composition as claimed in Claim 22, wherein the dialkyl adipate is diisononyl adipate.

24. A composition, comprising from 5 to 90% by weight of the mixture as claimed in Claim 1 and from 10 to 95% by weight of one or more C₄-C₁₃ alkyl cyclohexanedicarboxylates.

25. The composition as claimed in Claim 24, wherein the alkyl cyclohexanedicarboxylate is diisononyl cyclohexanedicarboxylate.

26. The mixture as claimed in Claim 1, further comprising one or more di-C₄-C₁₃-alkyl phthalates.

27. The composition as claimed in Claim 26, wherein the di-C₄-C₁₃-alkyl phthalate is diisononyl phthalate.

28. The mixture as claimed in Claim 1, further comprising of one or more di-C₄-C₁₃-alkyl adipates.

29. The mixture as claimed in Claim 28, wherein the di-C₄-C₁₃-alkyl adipate is diisononyl adipate.

30. The mixture as claimed in Claim 1, further comprising one or more C₄-C₁₃ alkyl cyclohexanedicarboxylates.

31. The mixture as claimed in Claim 30, wherein the C₄-C₁₃ alkyl cyclohexanedicarboxylate is diisononyl cyclohexanedicarboxylate.